

MAR 02 1993

ORIGINAL



## MATERIAL SAFETY DATA SHEET

## PRODUCT

NALCO 2567 ALKALINE CLEANER

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

**SECTION 1 PRODUCT IDENTIFICATION**

TRADE NAME: NALCO 2567 ALKALINE CLEANER

DESCRIPTION: An aqueous solution of metasilicate, 2-butoxyethanol and fatty acids

NFPA 704M/HMIS RATING: 2/3 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme**SECTION 2 HAZARDOUS INGREDIENTS**

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX.%
2-Butoxyethanol	111-76-2	5-10
Sodium metasilicate	6834-92-0	5-10

**SECTION 3 PRECAUTIONARY LABEL INFORMATION**

WARNING: Causes eye injury and skin irritation. Do not get in eyes. Avoid contact with skin and clothing. Wear goggles or face shield when handling. Avoid prolonged or repeated breathing of vapors. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

**SECTION 4 FIRST AID INFORMATION**

EYES: Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

SKIN: Immediately flush with water for at least 15 minutes. For a large splash, flood body under a shower. Call a physician at once.

INGESTION: Do not induce vomiting. Give water. Call a physician.

INHALATION: Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.



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## SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation

EYE CONTACT: Can cause severe irritation.  
SKIN CONTACT: Can cause severe irritation.  
INGESTION: Can cause liver, kidney damage.  
INHALATION: Prolonged inhalation of mist or vapor may cause nausea, dizziness, light-headedness, vomiting or unconsciousness depending on the length of exposure and the first aid action given.

### SYMPTOMS OF EXPOSURE:

ACUTE: Severe irritation of skin or eyes.

CHRONIC: Repeated or widespread dermal contact or prolonged breathing of vapors or ingestion may result in injury to the liver, kidney or blood cells causing blood in the urine.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

## SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have not been conducted on this product, but toxicity studies of the ingredient(s) in Section 2 have been reviewed. The results are shown below.

### ACUTE ORAL TOXICITY (ALBINO RATS):

2-Butoxyethanol LD<sub>50</sub> = 470 mg/kg

### ACUTE DERMAL TOXICITY (ALBINO RABBITS):

2-Butoxyethanol LD<sub>50</sub> = 220 mg/kg

OTHER TOXICITY RESULTS: When pregnant rabbits were exposed via inhalation to 2-butoxyethanol at a concentration of 200 ppm, maternal toxicity along with an increased incidence of embryoletality and fetotoxicity were observed. Similar findings in rats were observed at exposure levels of 200 and 100 ppm. No significant increase in fetal malformations were noted in either study.

None of the blood and testicular changes produced by the methyl and ethyl ethers of ethylene glycol were observed in rats exposed to 2-butoxyethanol at levels of 77 ppm and lower. Studies to determine if 2-butoxyethanol increases red blood cell (RBC) fragility indicated that this effect appears to be more pronounced in mice, rats and rabbits. Increased RBC fragility was not observed in pigs, dogs and monkeys. None of the blood effects noted in animals were



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## SECTION 6 TOXICOLOGY INFORMATION

( CONTINUED )

observed in humans exposed to 2-butoxyethanol at levels as high as 200 ppm. The results of mammalian cell mutagenicity tests were negative.

## SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Pale yellow	FORM: Liquid	ODOR: Pine
DENSITY:	8.81 lbs/gal.	
SOLUBILITY IN WATER:	Completely	
SPECIFIC GRAVITY:	1.06 @ 60 Degrees F	ASTM D-1298
pH (NEAT) =	13	pH (at 5%) = 11.9
FREEZE POINT:	21 Degrees F	ASTM E-70
FLASH POINT:	None	ASTM D-1177

NOTE: These physical properties are typical values for this product.

## SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: None

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: Contact with reactive metals (eg. aluminum) may result in the generation of flammable hydrogen gas.

## SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong acids (eg. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) which can generate heat, splattering or boiling and the release of toxic fumes.

FEEDING EQUIPMENT: Avoid contact with aluminum, brass or polyurethane.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO<sub>2</sub> may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

## SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Use either a chemical cartridge respirator with a dust/mist prefilter or supplied air.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.



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## SECTION 10 PERSONAL PROTECTION EQUIPMENT

( CONTINUED )

**VENTILATION:** General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors or mists may be released.

**PROTECTIVE EQUIPMENT:** Wear impermeable gloves, boots, apron and a face shield with chemical splash goggles. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton and butyl (compatibility studies have not been performed). A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

## SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

### SPILL CONTROL AND RECOVERY:

**Small liquid spills:** Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

**Large liquid spills:** Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 10.

**DISPOSAL:** If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

As a hazardous liquid waste, it must be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to a licensed industrial waste landfill (Hazardous Waste Treatment, Storage and Disposal facility). A hazardous liquid waste can also be deep-well injected in accordance with local, state, and federal regulations.



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## SECTION 12 ENVIRONMENTAL INFORMATION

If released into the environment, see CERCLA in Section 14.

## SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - ORM-B, N.O.S.

ORM-B NA 1760

CONTAINS

- SODIUM METASILICATE

## SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

### FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

Sodium metasilicate - Corrosive

2-Butoxyethanol - Systemic effects

2-Butoxyethanol = TWA 25 ppm, 121 mg/m<sup>3</sup> (skin) ACGIH/TLV

2-Butoxyethanol = TWA 25 ppm, 120 mg/m<sup>3</sup> (skin) OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986  
(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):  
Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire hazard
- Sudden release of pressure hazard
- Reactive hazard



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## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

### SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product contains the following ingredient(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals.

2-Butoxyethanol	111-76-2	5-10
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### TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

### U. S. DEPARTMENT OF AGRICULTURE (USDA):

USDA Inspection and Grading Programs - Food Safety and Inspection Service:  
This product is authorized by USDA for use in federally inspected meat and poultry plants. Authorized use is under category A4.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:  
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15  
(formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):  
None of the ingredients are specifically listed.

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments):  
This product contains the following ingredients covered by the Clean Air Act:

2-Butoxyethanol - Section 111

### STATE REGULATIONS:

#### CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals which require warning under California Proposition 65.

#### MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical Materials Register.

### STATE RIGHT TO KNOW LAWS:

The following ingredient(s) are disclosed for compliance with State Right To Know Laws:

2-Butoxyethanol	111-76-2
Fatty acid	Trade secret



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## SECTION 14 REGULATORY INFORMATION

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Fatty acid	Trade secret
Inorganic solvent	Trade secret
Sodium metasilicate	6834-92-0

### INTERNATIONAL REGULATIONS:

This is a WHMIS controlled product under The House of Commons of Canada Bill C-70 (Class E). The product contains the following substance(s), from the Ingredient Disclosure List or has been evaluated based on its toxicological properties, to contain the following hazardous ingredient(s):

Chemical Name	CAS #	% Concentration Range
2-Butoxyethanol	111-76-2	5-10
Sodium metasilicate	10213-79-3	5-10

## SECTION 15 ADDITIONAL INFORMATION

Nalco internal number F203821

## SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

## SECTION 17 BIBLIOGRAPHY

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SAFETY HEALTH AND  
ENVIRONMENTAL AFFAIRS

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